	SOURCES MINING		FOR AMENDED REPOR						
APPLICATION FOR PERMIT TO DRILL					1. WELL NAME an	d NUMBER Thurston 8-20-9-24			
2. TYPE OF WORK DRILL NEW WELL (REENTER P&A WELL) DEEPEN WELL)				3. FIELD OR WILE	OCAT DEVILS PLAYGROUND				
4. TYPE OF WELL Gas We	ell Coalb	ed Methane Well: NO			5. UNIT or COMM	UNITIZATION AGRE	EMENT NAME		
6. NAME OF OPERATOR	THURSTON ENER	GY OPERATING			7. OPERATOR PHO	ONE 214 704-3896			
8. ADDRESS OF OPERATOR 365 \	W. 50 N. Ste W-8	3, Vernal, UT, 84078			9. OPERATOR E-M	AIL con@thurstonenergy.c	om		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		11. MINERAL OWNE		a 1 a.	12. SURFACE OWI	NERSHIP			
U-31266 13. NAME OF SURFACE OWNER (if box 12	= 'fee'\	FEDERAL (INC	DIAN () STATE (FEE		NDIAN () STATE	FEE		
15. ADDRESS OF SURFACE OWNER (if box						NER E-MAIL (if box			
13. ADDRESS OF SURFACE OWNER (II DOX	12 - 166)					VER E-MAIL (II DOX	12 - 166)		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COM MULTIPLE FORMATI YES (Submit C			1 _	VERTICAL DIRECTIONAL HORIZONTAL			
20. LOCATION OF WELL	FO	OTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE	2038 F	NL 751 FEL	SENE	20	9.0 S	24.0 E	S		
Top of Uppermost Producing Zone	2038 F	NL 751 FEL	SENE	20	9.0 S	24.0 E	S		
At Total Depth	2038 F	NL 751 FEL	SENE	20	9.0 S	24.0 E	S		
21. COUNTY UINTAH		22. DISTANCE TO N	IEAREST LEASE LIN 751	T LEASE LINE (Feet) 23. NUMBER OF ACRES IN DRILLING UNIT 1594					
		25. DISTANCE TO N (Applied For Drilling	IEAREST WELL IN S g or Completed) 2500	AME POOL	26. PROPOSED DEPTH MD: 8000 TVD: 8000				
27. ELEVATION - GROUND LEVEL		28. BOND NUMBER			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE				
5288			UTB-000181		White River Permit #49-2286				
		A ⁻	TTACHMENTS						
VERIFY THE FOLLOWING	ARE ATTACH	ED IN ACCORDAN	ICE WITH THE U	TAH OIL AND	GAS CONSERVAT	TON GENERAL RI	JLES		
WELL PLAT OR MAP PREPARED BY	LICENSED SUR	VEYOR OR ENGINEE	R COM	IPLETE DRILLII	NG PLAN				
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGRE	EMENT (IF FEE SURF	FACE) FORI	4 5. IF OPERAT	OR IS OTHER THAN	THE LEASE OWNER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				OGRAPHICAL M	IAP				
NAME Russell H. Cox TITLE Operations Manager			er	PHONE 4	35 789-8580				
SIGNATURE DATE 10/21/2010				EMAIL ru	ssell.cox@thurstonener	gy.com			
API NUMBER ASSIGNED 43047513320000	API	PROVAL		B	00.64jll				
D _e					mit Manager				

API Well No: 43047513320000 Received: 10/21/2010

	Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)			
Prod	7.875	5.5	0	8000			
Pipe	Grade	Length	Weight				
	Grade N-80 LT&C	8000	17.0				

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API Well No: 43047513320000 Received: 10/21/2010

	Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)			
Surf	12.25	9.625	0	2000			
Pipe	Grade	Length	Weight				
	Grade J-55 ST&C	2000	36.0				

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Ten Point Plan

Thurston Energy Operating Company

Thurston 8-20-9-24

Surface Location SE 1/4 NE 1/4

Section 20, T.9S. R24E.

1. Surface Formation

Green River

2. Estimated Formation Tops and Datum:

Formation		<u>Depth</u>	<u>Datum</u>
Green River		Surface	+5,288' G.L.
Bird's Nest	Water	1,600	+3,688'
Wasatch	Oil/Gas	4,158	+1,130'
Mesaverda	Oil/Gas	5,748	-460'
TD		8,000	-2,712

A 12 $\frac{1}{4}$ "hole will be drilled to 2,000' +/-. The hole depth will depend on the depth that the Birds Nest Zone is encountered. The hole will be drilled 400' beyond the top of the Birds Nest. All water and oil and gas baring zones shall be protected by casing and cement program.

3. Producing Formation Depth:

Formation objective includes the Wasatch, Mesaverde and its sub-members.

4. Proposed Casing:

<u>Hole Size</u>	Casing Size	<u>Weight/FT</u>	<u>Grade</u>	Coupling & Tread	Casing Depth	New/Used
12 ¼"	9 5/8"	36#	J-55	STC	2,000	New
7 7/8"	5 1/2"	17#	N-80	LTC	T.D.	New

Cement Program:

The Surface Casing will be cemented to the Surface as follows:

Note: Cement amounts shown with 50% excess.

Casing Depth Lead:	<u>Casing Size</u>	Cement Type	Cement Amounts	Cement Yield	<u>Water Mix</u>	Cement Weight
0-1,600'	9 5/8	Premium "5" 16% Gel 10 #/sk Gilsonite 3% Salt 3 #/sk GB3 0.25 #/sk Flocele	197 sks. +/-	3.82ft ³ /sk	23	11.0 ppg
Tail: 1,600-2,000'	9 5/8	Class "G" 2% Calcium Chlori 0.25 #/sk Flocele	159 sks. +/- _{de}	1.18ft³/sk	5	15.6 ppg

Top Job:

9 5/8 Class "G" 10-200 sks. +/- 1.15ft³/sk 5 15.8 ppg

4% Calcium Chloride 0.25 #/sk Flocele

Production casing will be cemented to 1800' or higher as follows:

Note: Tail should be 200' above the Wasatch Note: Cement amounts shown with 25% excess.

<u>Casing Depth</u> Lead:	<u>Casing Size</u>	Cement Type	Cement Amounts	<u>Cement Yield</u>	Water Mix	Cement Weight
1,800-3,958'	5 ½	Premium Lite I 0.05 #/sk Static I 0.25 #/sk Cello F 5 #/sk KOL Seal 0.005 gps FP-6L 8% Gel 0.5% R-3 0.5% FL-52	Free lake	3.38ft ³ /sk	20.52	11.0 ppg
Tail: 3,958'-8,000	' 5½	Class "G" 0.05% Static Free 10% NACL 0.1% R-3 2% Gel	668 sks. +/-	1.31ft ³ /sk	5.91	14.3 ppg

5. BOP and Pressure Containment Data:

A 3000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 9 5/8" surface casing. An upper Kelly cock to the required pressure rating with a handle available shall be employed.

The BOP system including the casing will be pressure tested to minimum standards set forth in "On Shore Order #2". The BOP will be mechanically checked daily during the drilling program.

6. Mud Program:

<u>Interval</u>	Mud Weight (lbs./gal)	Viscosity (Sec./OT.)	Fluid Loss M1/30 Min	s. <u>Mud Type</u>
0-2000 2000-T.D.	Air/Clear Water 8.4-9.4	30-45	No Control 8-10	Water/Gel LSND
2000 1.2.	0.1 3.1	00 10	0 10	water based mud system

Note: Mud weights may exceed 9.4 due to solids increasing at or near T.D. Increased weights are not required to control formation pressure. Operator will have on location sufficient mud and weight material to increase mud weight to 9.4 at any

time while drilling the subject well. Visual mud monitoring incorporating pit level indicators shall be used.

7. Testing, Coring, Sampling and Logging:

a) DST: None are anticipated

b) Coring: There is the possibility of sidewall coring.

c) Mud Sampling: Every 10' from 2000' to T.D.

d) Logging: Type Interval

DLL/SFL W/GR and SP T.D. to Surf. Csg FDC/CNL W/GR and CAL T.D. to Surf. Csg

8. Abnormalities (including sour gas):

Based on off set wells anticipated bottom hole pressure will be less than 3000 psi. No abnormal pressures, temperatures or other hazards are anticipated. Other wells drilled in the area have not encountered over pressured zones or H2S.

9. Other facets of the proposed operation:

Off Set Well information:

Abandon Wells:

PTS Beehive #11-20

Shut in Well:

Dirty Devil Unit #23-20

Dirty Devil Unit #11-29

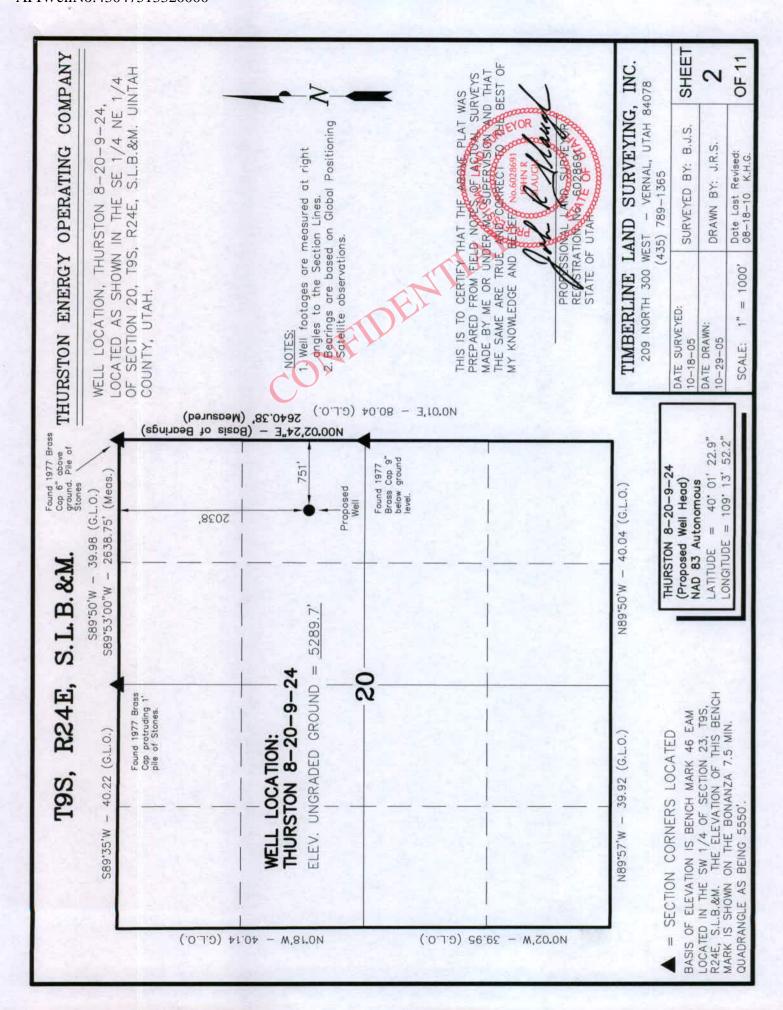
Producing Wells:

Devils Playground #23-17

10. Drilling Schedule:

The anticipated starting date is	Duration of operations is expected to
be 30 days.	

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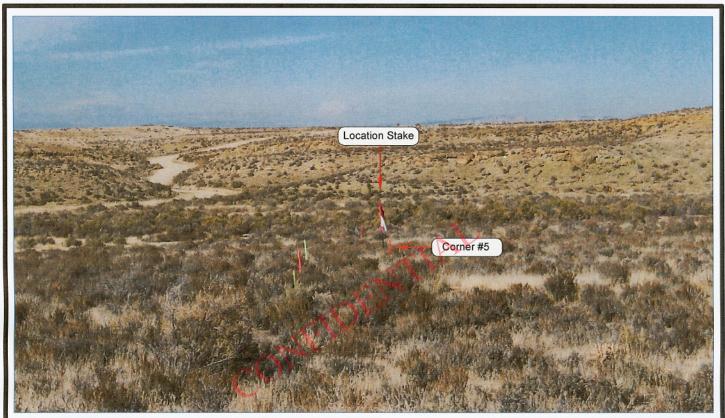


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

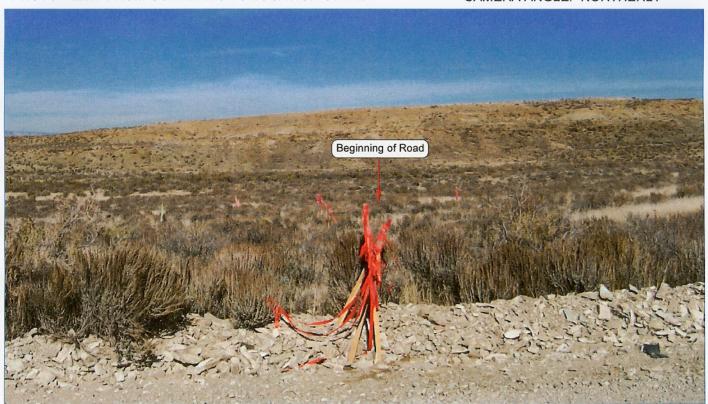


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHEASTERLY

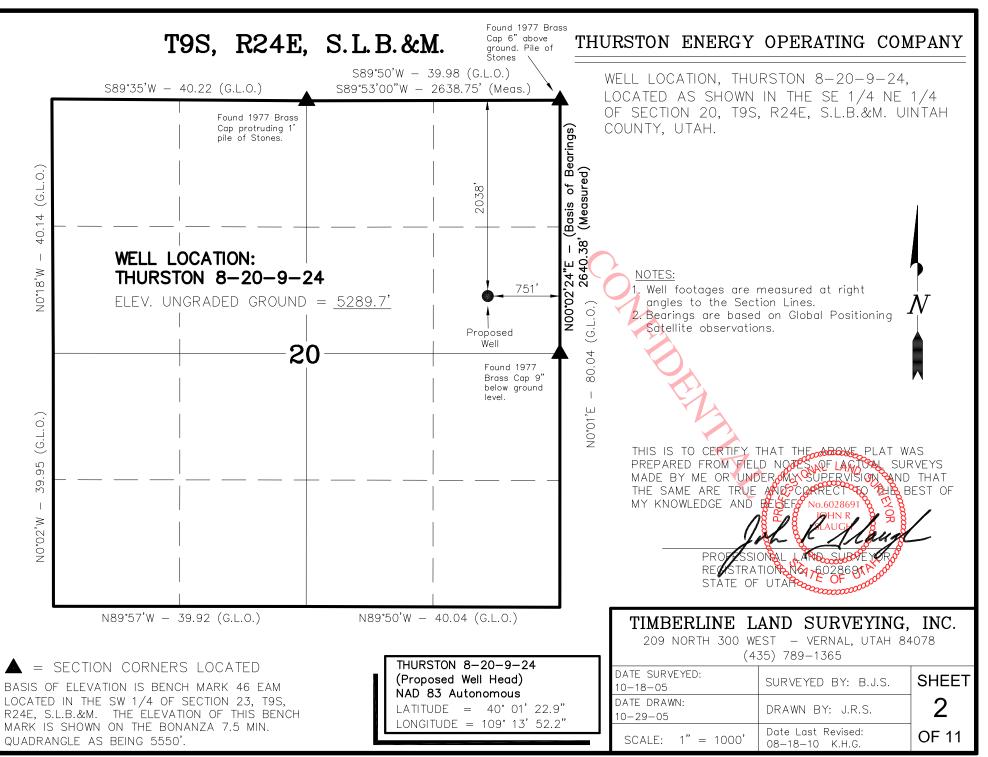
THURSTON ENERGY OPERATING COMPANY

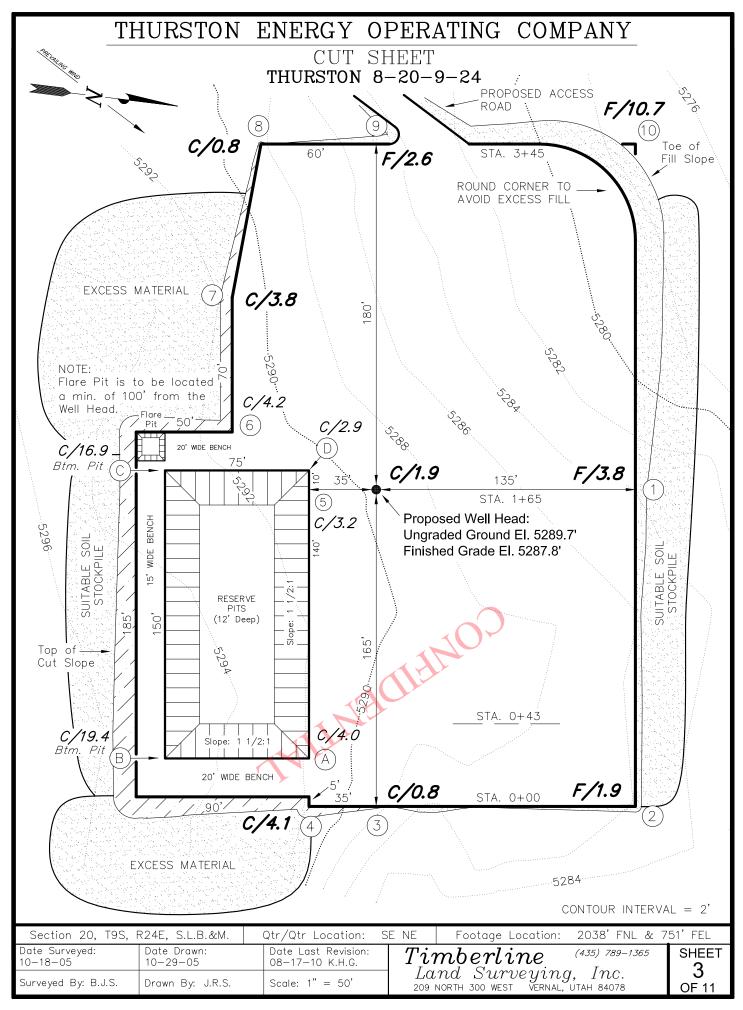
Thurston 8-20-9-24 SECTION 20, T9S, R24E, S.L.B.&M. 2038' FNL & 751' FEL

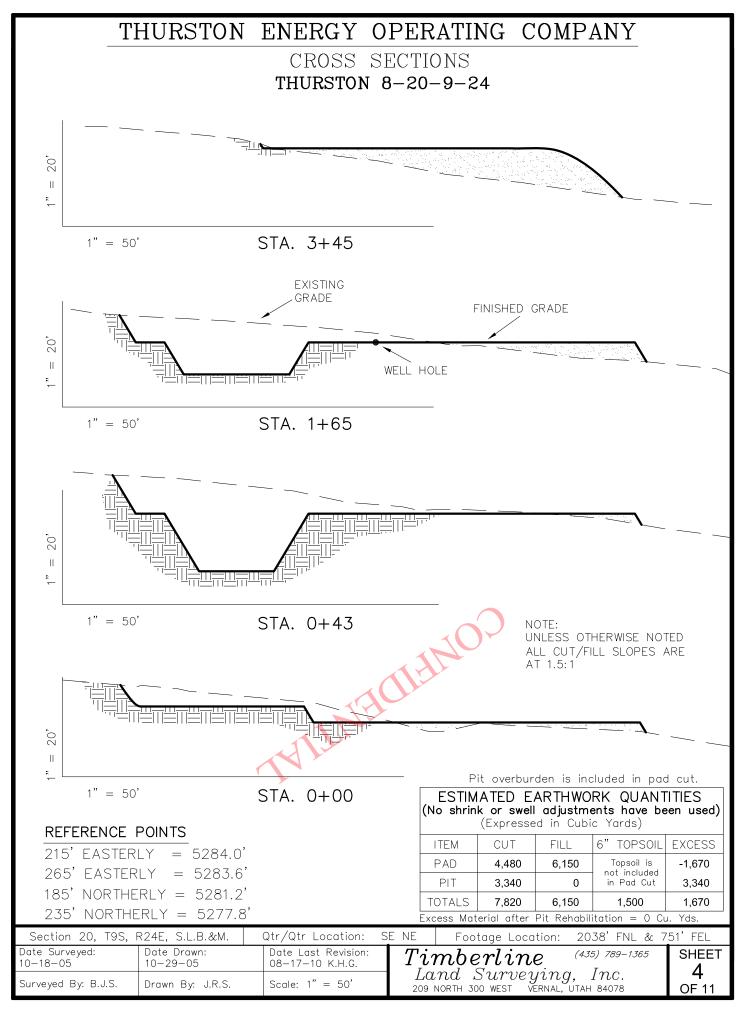
LOCATION PHOTOS		DATE TAKEN: 10-18-05			
LOCATION	1110100	DATE DRAWN: 10-31-05			
TAKEN BY: K.R.K.	DRAWN BY: BJ.Z.	REVISED: 08-18-10 K.H.G.			

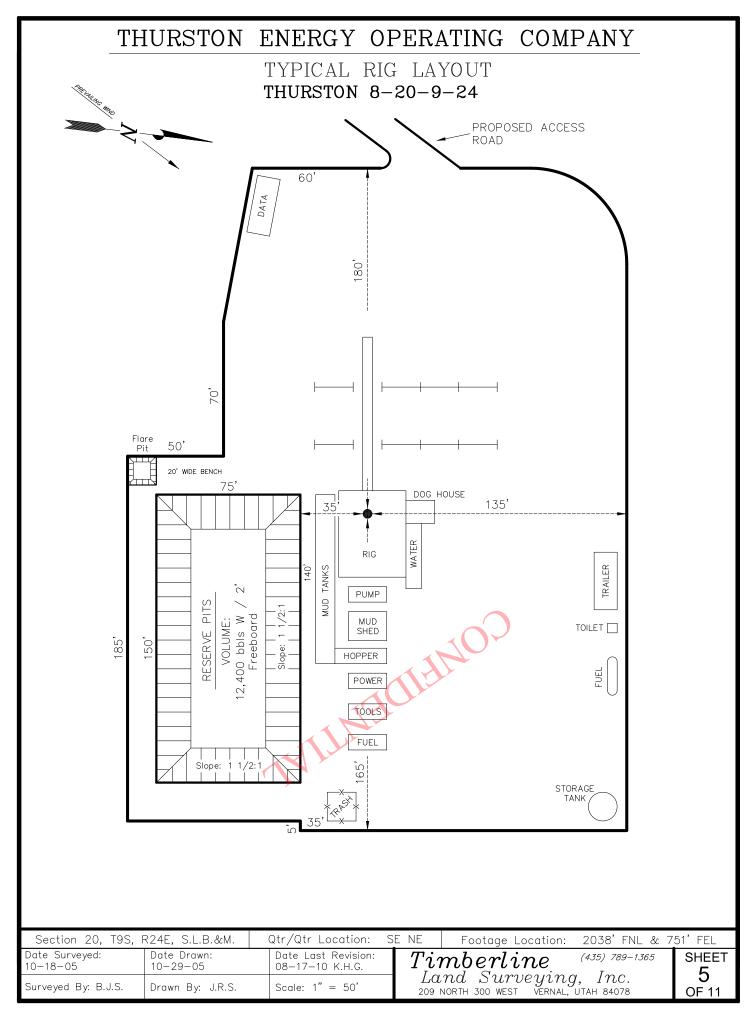
Timberline Land Surveying, Inc. 209 North 300 West Vernal, Utah 84078 (435) 789-1365

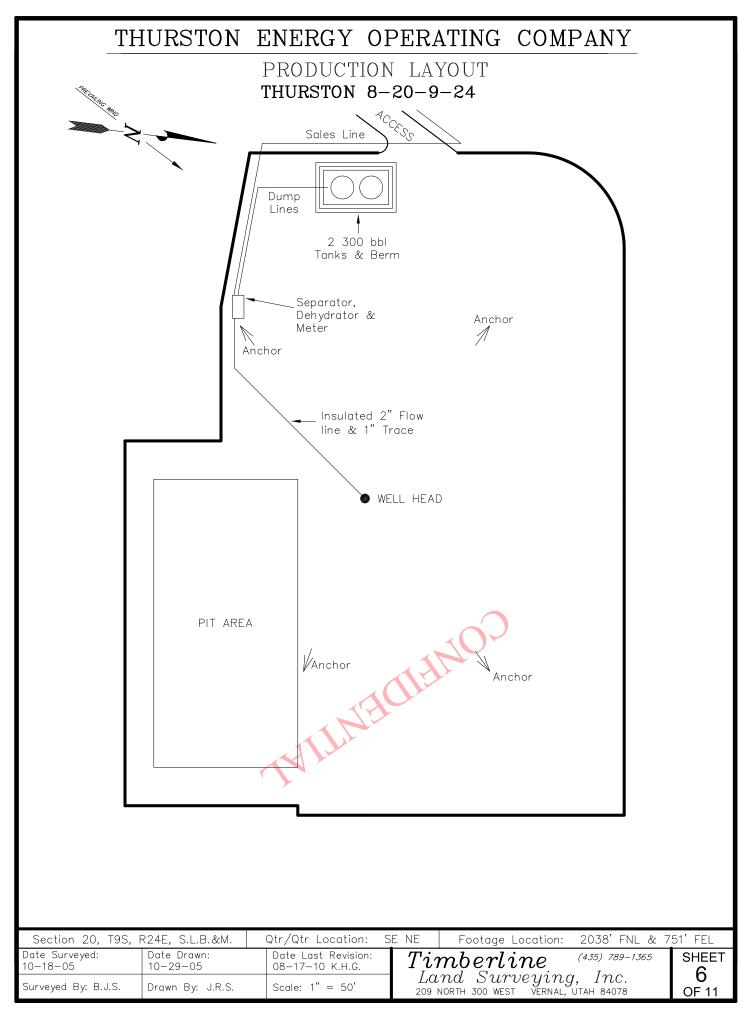
SHEET 1 OF 11

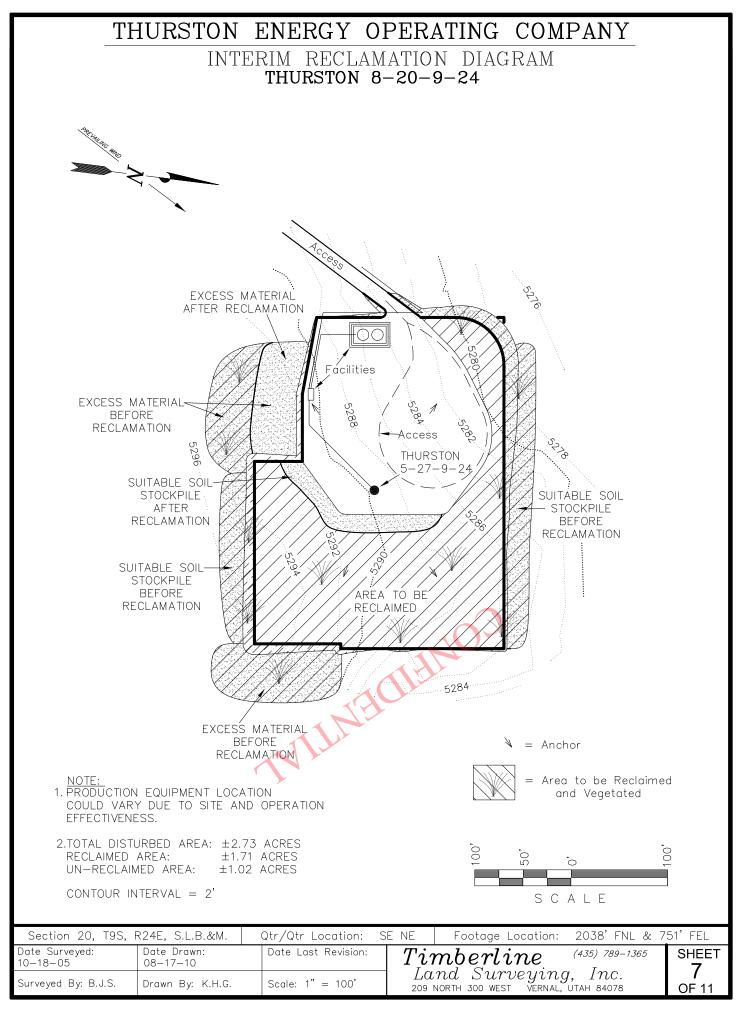


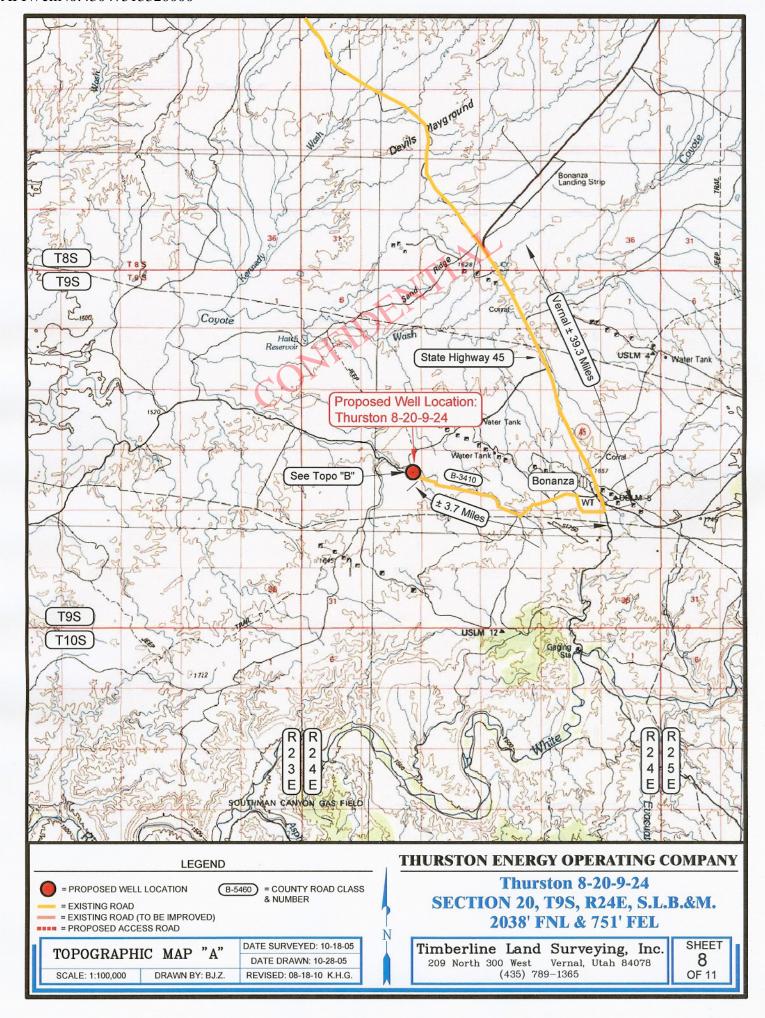


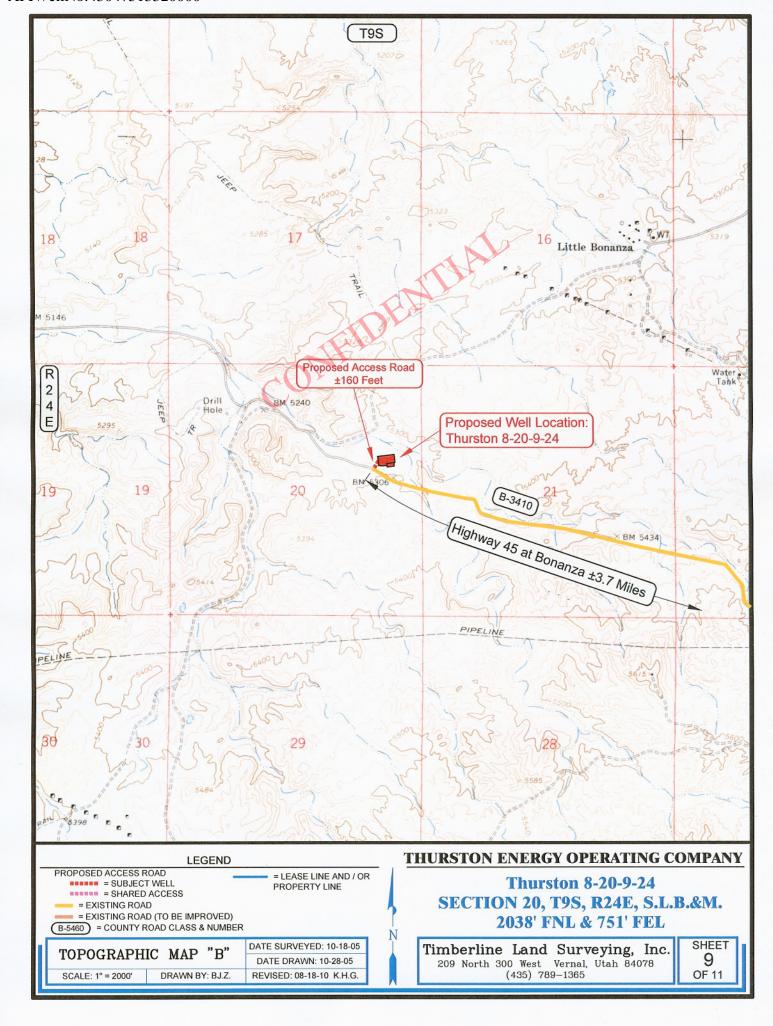


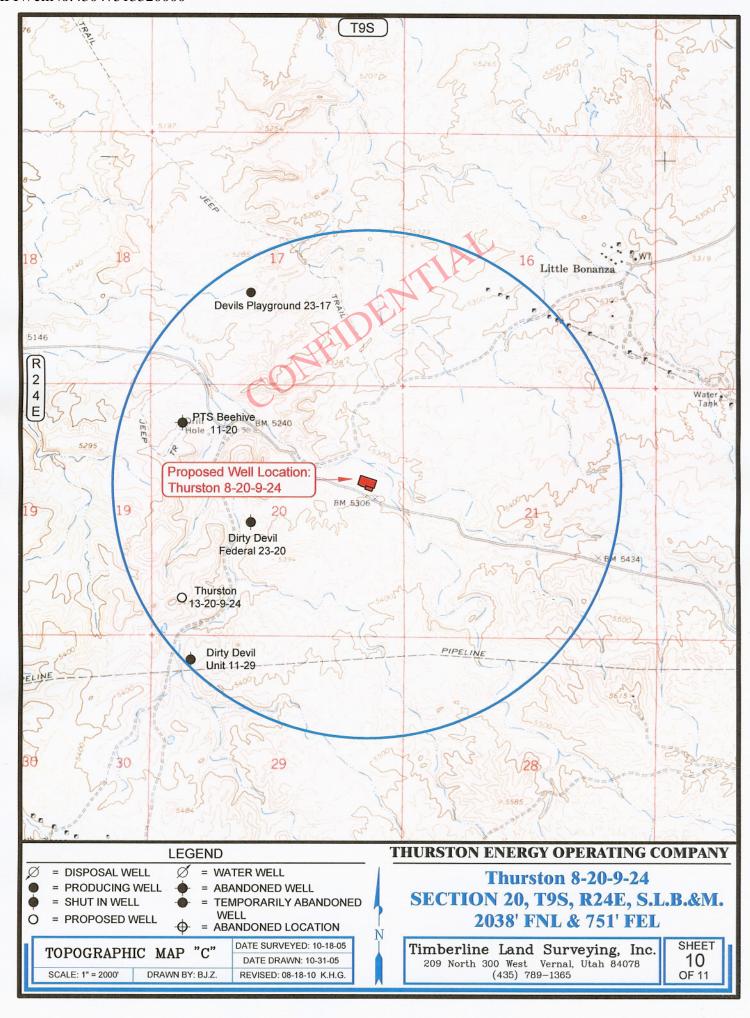


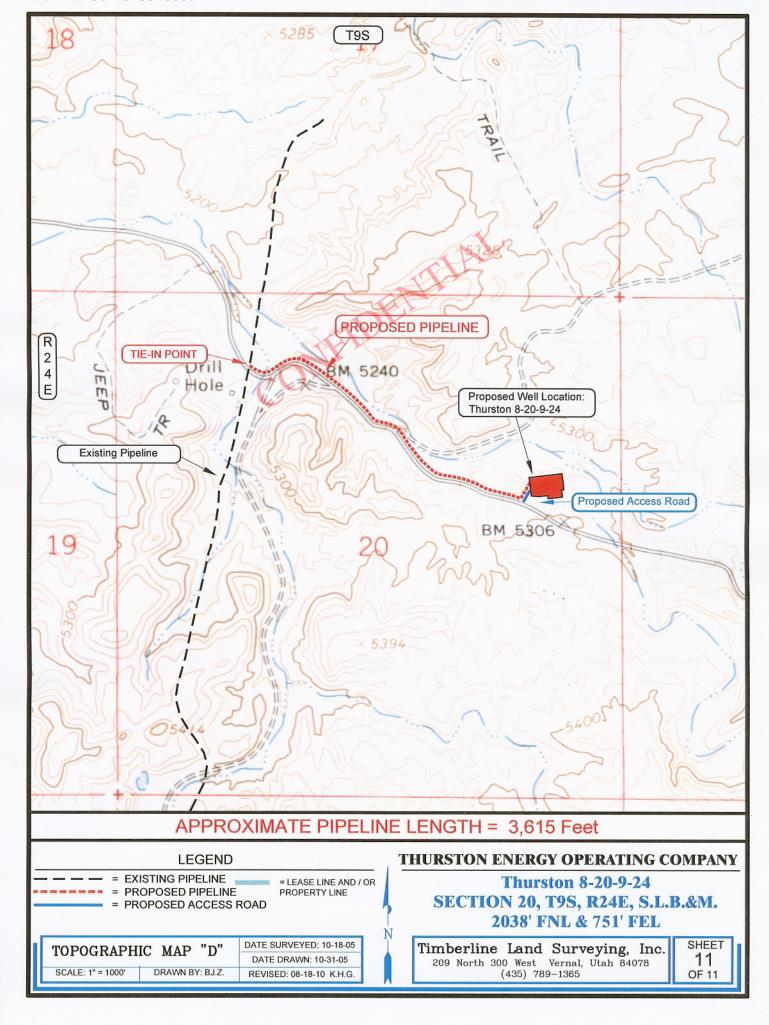








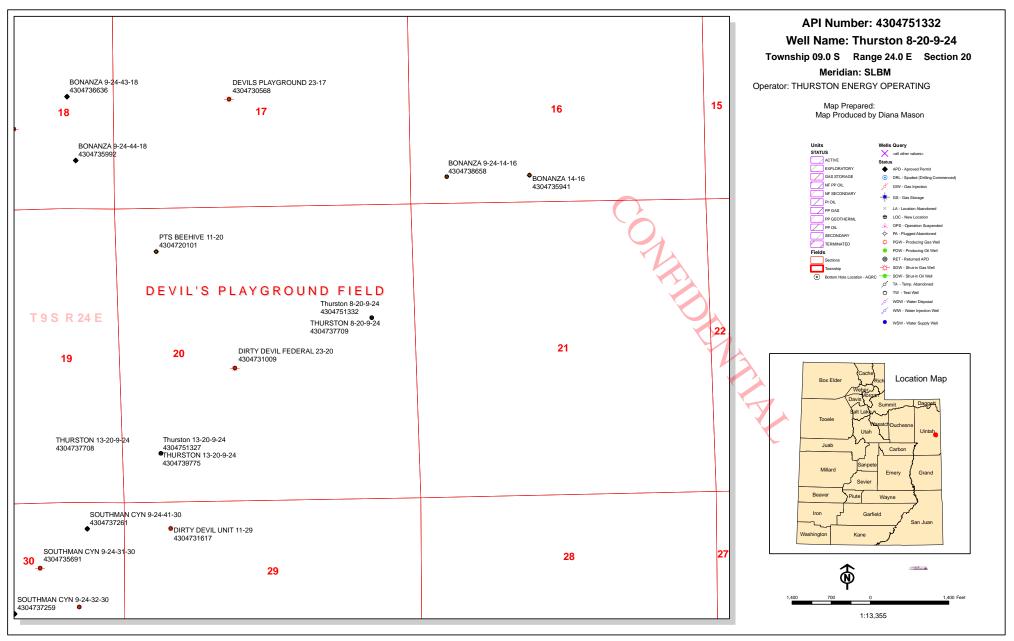




THURSTON ENERGY OPERATING COMPANY Thurston 8-20-9-24 Section 20, T9S, R24E, S.L.B.&M.

FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND 500 EAST STREET IN VERNAL, UTAH; PROCEED IN AN EASTERLY THEN SOUTHERLY DIRECTION ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.3 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 45 APPROXIMATELY Y 36 MILES TO THE JUNCTION OF COUNTY BROAD 3410 (THIS ROAD IS LOCATED APPROXIMATELY 0.5 MILES SOUTH OF BONANZA, UTAH). EXIT RIGHT AND PROCEED IN A WESTERLY DIRECTION ALONG COUNTY BROAD 3410 APPROXIMATELY 3.7 TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 160 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 43 MILES.



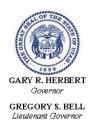
WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/21/2010 **API NO. ASSIGNED:** 43047513320000 WELL NAME: Thurston 8-20-9-24 **OPERATOR:** THURSTON ENERGY OPERATING (N2790) **PHONE NUMBER:** 435 789-8580 **CONTACT:** Russell H. Cox PROPOSED LOCATION: SENE 20 090S 240E **Permit Tech Review: SURFACE: 2038 FNL 0751 FEL Engineering Review:** BOTTOM: 2038 FNL 0751 FEL Geology Review: **COUNTY: UINTAH LATITUDE:** 40.02301 **LONGITUDE:** -109.23051 **UTM SURF EASTINGS: 651001.00** NORTHINGS: 4431601.00 FIELD NAME: DEVILS PLAYGROUND LEASE TYPE: 1 - Federal **LEASE NUMBER:** U-31266 PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE **SURFACE OWNER:** 1 - Federal **COALBED METHANE: NO RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** PLAT R649-2-3. Bond: FEDERAL - UTB-000181 Unit: **Potash** R649-3-2. General Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception Oil Shale 190-13 ✓ Drilling Unit **Water Permit:** White River Permit #49-2286 Board Cause No: Cause 179-15 **RDCC Review:** Effective Date: 7/17/2008 Siting: 460' Fr Exterior Lease Boundary **Fee Surface Agreement Intent to Commingle** R649-3-11. Directional Drill **Commingling Approved Comments:** Presite Completed

Stipulations:

4 - Federal Approval - dmason

API Well No: 43047513320000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Thurston 8-20-9-24 **API Well Number:** 43047513320000

Lease Number: U-31266 **Surface Owner:** FEDERAL **Approval Date:** 11/1/2010

Issued to:

THURSTON ENERGY OPERATING, 365 W. 50 N. Ste W-8, Vernal, UT 84078

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-15. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

 Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available) OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month

API Well No: 43047513320000

- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM	APPRO	VEI
	lo. 1004-	
Expires	July 31	2010

BUREAU OF LAND	U-31266				
APPLICATION FOR PERMIT		6. If Indian, Allotee or	Tribe Name		
la. Type of work: DRILL R	Type of work:			7 If Unit or CA Agreement, Name and No.	
lb. Type of Well: Oil Well Gas Well Other	of Well: ☐ Oil Well Gas Well ☐ Other ☐ Single Zone Multiple Zone			8. Lease Name and We Thurston 8-20-9-24	II No.
Name of Operator Thurston Energy Operating Comp	pany			9. API Well No. 43-041-	51332
3a. Address 365 West 50 North Ste W-8 Vernal, UT 84078	t t	Phone No. (include area code) 5-789-8580		10. Field and Pool, or Expundesignated	
4. Location of Well (Report location clearly and in accordance	with any State	requirements.*)		11. Sec., T. R. M. or Blk.	and Survey or Area
At surface 2038' FNL & 751' FEL SENE				Sec 20, T9S R24E	•
At proposed prod. zone same as above					
14. Distance in miles and direction from nearest town or post office 43 miles south of Vernel, UT	ice*			12. County or Parish Uintah	13. State Ut
15. Distance from proposed* 751' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 17. Spaci 40		1 -	ing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		1		M/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22.	22. Approximate date work will start*		23. Estimated duration	
5288' GR		03/15/2011		30 days	
	24.	. Attachments			
The following, completed in accordance with the requirements of	Onshore Oil	and Gas Order No.1, must be at	ttached to the	is form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest S SUPO must be filed with the appropriate Forest Service Office 	System Lands ce).	Item 20 above). 5. Operator certific	ation	ns unless covered by an exi	•
25. Signature		Name (Printed/Typed) William A. Ryan		Date 06/03/2010	
Title Agent					
Approved by (Signature)		Name (Printed/Typed) K	encz	ka	ate AUG 1 1 201
Title Assistant Field Manager Lands & Mineral Resources				IELD OFFICE	
Application approval does not warrant or certify that the applicate conduct operations thereon. Conditions of approval, if any, are attached.		or equitable title to those right		•	le the applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make States any false, fictitious or fraudulent statements or representation	it a crime fo	or any person knowingly and w			gency of the United

(Continued on page 2)

*(Instructions on page 2)

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DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

BLM VERNAL, UTAH



UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Thurston Energy Operating Company Location:

170 South 500 East

Thurston 8-20-9-24

43-047-51332

Lease No: Agreement: SENE, Sec. 20, T9S, R24E

UTU-31266

N/A

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-,	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 8 Well: Thurston 8-20-9-24

8/11/2011

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.
- Construction and drilling activities are not allowed from January 1 August 31 to minimize impacts during golden eagle nesting. This timing limitation only applies to Section 19, T9S, and R24E.
- If it is anticipated that construction and drilling activities will occur during any of the given timing
 restrictions, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending
 upon the results of the surveys, permission to proceed may or may not be granted by the
 Authorized Officer.
- See mitigation / applicant committed design features in EA-0317 for more specifics on conditions of approval for potential air quality impacts
- All production tanks except on the 7-9-9-24 location will be placed towards the front of the well pad
 to maximize interim reclamation, and lessen the potential long term impacts that could occur to soils
 and vegetation.
- Topsoil shall be wrapped around corner #10 for the 5-27-9-24 location as discussed on the onsite 6/30/2010.
- All access roads shall be built to BLM standards. The crown and ditch method is the standard
 which helps control runoff from increasing potential erosion rates to the road surfaces. This will
 also help divert any seasonal flows off the road into vegetated areas to increase the chance for
 reclamation success on road disturbance areas that should be reseeded after construction has
 ceased, preferably in the fall before ground freeze.
- All production equipment will be painted Covert Green to help blend in with surrounding vegetation.
- On all locations a permanent reference point must be established prior to any reclamation activities.
 This reference point helps to establish the criteria for successful reclamation based on the Green River District Reclamation Guidelines.
- A dike/berm will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater-treater). It will be constructed of

Page 3 of 8 Well: Thurston 8-20-9-24

8/11/2011

compacted subsoil, be impervious, hold 110% of the capacity of the largest tank, and be independent of the back cut.

- The reserve pit will be fenced on three sides during drilling operations and on the fourth side when the rig moves off location. It will be fenced, and the fence maintained, until the pit undergoes reclamation efforts.
- To insure impermeability, the reserve pit will be lined with a 16 ml or greater liner and felt prior to spudding.
- Reserve pits will be closed as soon as possible, but no later than 180 days from time of drilling/well
 completion, unless the BLM Authorized Officer gives an extension. Pits must be dry of fluids or they
 must be removed via vac-truck or other environmentally acceptable method prior to backfilling, recontouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet
 below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas
 that develop.
- Any hydrocarbons in the reserve pit will be removed immediately upon well completion; in accordance with 43 CFR 3162.7-1. Pits must be free of oil and other liquid and solid wastes prior to filling.
- The road surface and shoulders will be kept in a safe and usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear. The existing access road surface and pad area will be kept free of trash during all operations. All traffic will be confined to the approved disturbed surface area.
- The operator will control noxious weeds and invasive plants along corridors for roads, pipelines, well sites, or other applicable facilities, through a Pesticide Use Permit (PUP).
- An Interim Surface Reclamation Plan for surface disturbance on the well pad, access road, and
 pipeline has been completed and will be followed for reclamation of the surface. At a minimum, this
 will include the Best Management Practice of the reshaping of the pad to the original contour to the
 extent possible; the re-spreading of the top soil up to the rig anchor points; and, reseeding the
 unused area using appropriate reclamation methods (Thurston's reclamation plan).

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The interim/final seed mix for reclamation will be:

Table 2.3.5 Interim/Final Reclamation Seed Mixture

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	Elymus elymoides	3.0	1/4 - 1/2"
Siberian Wheatgrass	Agropyron fragile	2.0	1/2"
Needle and Thread	Stipa comata	3.0	1/2"
Bluebunch Wheatgrass	Pseudoroegneria spicata	3.0	1/2"
Shadscale	Atriplex confertifolia	0.50	1/2"
Gardner's saltbush	Atriplex gardneri	0.50	1/2"
Scarlet globemallow	Sphaeralcea coccinea	0.10	1⁄8□− 1⁄4"

- All pounds are pure live seed.
- All seed and mulch will be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

 Following well plugging and abandonment, the location, access roads, pipelines, and other facilities shall be fully reclaimed. All disturbed surfaces shall be reshaped to approximate the original contour; the top soil re-spread over the surface; and, the surface re-vegetated. The surface of approved staging areas where construction activities did not occur may require disking or ripping and reseeding. In order the Final Abandonment Notice to be approved Thurston must meet the requirement for successful reclamation as outlined in the Green River District Reclamation Guidelines.

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DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Gamma Ray Log shall be run from Total Depth to Surface.
- Cement for the production casing must be brought 200 feet above the surface casing shoe.

Variances Granted

Air Drilling:

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100 feet from the well bore. Variance granted for blooie line discharge to be 45 feet from the well bore.
- Compressors located in the opposite direction from the blooie line, a minimum of 100 feet from the well bore. Variance granted for truck/trailer mounted air compressors located within 45 feet of the well.
- In lieu of mud products on location for a "kill medium", water will be pulled from the reserve pit and used as a kill fluid.
- Automatic igniter. Variance granted due to lack of productive formations in the interval for the surface sassing.
- FIT test. Variance granted due to well-known geology and problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order

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No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be
 reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported
 verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will
 be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of
 Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

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core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
 the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
 All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
 product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
 accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Green River District Vernal Field Office 170 South 500 East Vernal, UT 84078

http://www.blm.gov/ut/st/en/fo/vernal.html

APR 17 2015



IN REPLY REFER TO: 3160 (UTG011)

Chris Curton Thurston Energy Operating Company 4925 Greenville Ave., #840 Dallas, TX 75206

43 DAT 51332

RECEIVED

MAY 04 2015

DIV. OF OIL, GAS & MINING

Dear Chris:

The referenced Applications for Permit to Drill (APD) have expired. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced applications has expired. If you intend to drill at these locations in the future, a new Application for Permit to Drill must be submitted.

Lease	Well	Aliquot	Sec., T., R.	Date Rec'd	Date Exp'd
UTSL-071725C	Thurston 5-27-9-24	SWNW	Sec. 27-T9S-R24E	10/20/2010	8/10/2013
UTSL-071725C	Thurston 15-27-9-24	SWSE	Sec. 27-T9S-R24E	10/20/2010	8/10/2013
UTU-0145459	Thurston 9-7-9-24	SWNW	Sec. 7-T9S-R24E	10/20/2010	8/10/2013
UTU-0145459	Thurston 10-7-9-24	NWSE	Sec. 7-T9S-R24E	12/30/2010	8/10/2013
UTU-5217	Thurston 7-9-9-24 WA	SWNE	Sec. 9-T9S-R24E	12/16/2010	8/11/2013
UTU-31266	Thurston 13-19-9-24	Lot 4	Sec. 19-T9S-R24E	10/20/2010	8/16/2013
VTU-31266	Thurston 8-20-9-24	SENE	Sec. 20-T9S-R24E	10/20/2010	8/10/2013
UTU-31266	Thurston 13-20-9-24	SWSW	Sec. 20-T9S-R24E	10/20/2010	8/10/2013

This office requires a letter confirming that no surface disturbance has been made for these drill sites. Any surface disturbance associated with the approved location of these wells is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

If you have any questions regarding this matter, please contact Robin R. Hansen at (435) 781-3428.

Sincerely.

/s/ Jerry Kenczka

Jerry Kenczka Assistant Field Manager Lands & Mineral Resources

CC: bcc:

UDOGM Well File

I&E Asst.